CLAIMS

1.   A wireless communication system in which a transmitting end transmits packet data in block units; a receiving end transmits, to the transmitting end, a reception acknowledge signal when receiving the data successfully, whereas transmitting a negative acknowledge signal when not so; and the transmitting end retransmits data based on the negative acknowledge signal, the wireless communication system being characterized by comprising, at the receiving end thereof:

monitoring means for detecting that correct block data cannot be received even when a predetermined number of retransmissions of the block data is reached; and

means for transmitting a reception acknowledge signal for other block data containing, as packet data, only packet data that belongs to the same packet as the packet contained in the block data detected by the monitoring means.

2.   A wireless communication system in which a transmitting end transmits packet data in block units; a receiving end transmits, to the transmitting end, a reception acknowledge signal when receiving the data successfully, whereas transmitting a negative acknowledge signal when not so; and the transmitting end retransmits data based on the negative acknowledge signal, the wireless communication system being characterized by comprising:

at the receiving end thereof, means for detecting that correct block data cannot be received even when a predetermined number of retransmissions of the block data is reached and giving a notification to that effect to the transmitting end; and

at the transmitting end, transmission control means for performing control to inhibit transmission of block data containing, as packet data, only packet data

18

that belongs to the same packet as that contained in the block data, in response to the notification.

3. The wireless communication system according to Claim 2, characterized in that the transmission control means discards the packet data
5   contained in the block data.

4. The wireless communication system according to Claim 3, characterized in that the notification contains a number of the block data or a number of packet data contained in the block data, and the transmission control means controls the block data transmission based on the block data number or
10   the packet data number.

5. A data retransmission control method for a wireless communication system in which a transmitting end transmits packet data in block units; a receiving end transmits, to the transmitting end, a reception acknowledge signal when receiving the data successfully, whereas transmitting a negative
15   acknowledge signal when not so; and the transmitting end retransmits data based on the negative acknowledge signal, the data retransmission control method being characterized by comprising, at the receiving end:

a monitoring step of detecting that correct block data cannot be received even when a predetermined number of retransmissions of the block data is
20   reached; and

a step of transmitting a reception acknowledge signal for other block data containing, as packet data, only packet data that belongs to the same packet as the packet contained in the block data detected by the monitoring means.

6. A data retransmission control method for a wireless
25   communication system in which a transmitting end transmits packet data in block units; a receiving end transmits, to the transmitting end, a reception acknowledge signal when receiving the data successfully, whereas transmitting a negative acknowledge signal when not so; and the transmitting end retransmits data based

on the negative acknowledge signal, the data retransmission control method being characterized by comprising:

at the receiving end, a step of detecting that correct block data cannot be received even when a predetermined number of retransmissions of the block data

5   is reached and giving a notification to that effect to the transmitting end; and

at the transmitting end, a transmission control step of performing control to inhibit transmission of block data containing, as packet data, only packet data that belongs to the same packet as that contained in the block data, in response to the notification.

10   7.   The data retransmission control method according to Claim 6, characterized in that the transmission control step discards the packet data contained in the block data.

8.   The data retransmission control method according to Claim 7, characterized in that the notification contains a number of the block data or a

15   number of packet data contained in the block data, and the transmission control step controls the block data transmission based on the block data number or the packet data number.

9.   A wireless receiving apparatus which transmits, to a transmitting end, a reception acknowledge signal when block data transmitted by the

20   transmitting end while dividing packet data into blocks is received successfully, whereas, when not so, transmits a negative acknowledge signal to receive retransmission of the data from the transmitting end based on the negative acknowledge signal, the wireless receiving apparatus being characterized by comprising:

25   monitoring means monitoring means for detecting that correct block data cannot be received even when a predetermined number of retransmissions of the block data is reached; and

means for transmitting a reception acknowledge signal for other block

data containing, as packet data, only packet data that belongs to the same packet as the packet contained in the block data detected by the monitoring means.

10.   A wireless receiving apparatus which transmits, to a transmitting end, a reception acknowledge signal when block data transmitted by the transmitting end while dividing packet data into blocks is received successfully, whereas, when not so, transmits a negative acknowledge signal to receive retransmission of the data from the transmitting end based on the negative acknowledge signal, the wireless receiving apparatus being characterized by comprising:

means for detecting that correct block data cannot be received even when a predetermined number of retransmissions of the block data is reached and giving a notification to that effect to the transmitting end.

11.   A wireless transmitting apparatus which transmits packet data while dividing the same into blocks, and receives transmission of a reception acknowledge signal when the receiving end has successfully received the block data, whereas, when not so, receives a negative acknowledge signal and retransmits data based on the negative acknowledge signal, the wireless transmitting apparatus being characterized by comprising:

transmission control means which, when receiving from the receiving end a notification indicating that correct block data cannot be received even when a predetermined number of retransmissions of the block data is reached, performs control to inhibit transmission of block data containing, as packet data, only packet data that belongs to the same packet as that contained in the block data

12.   The wireless transmitting apparatus according to Claim 11, characterized in that the transmission control means discards the packet data contained in the block data.